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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,875	07/16/2003	Jesse D. Wolfe	IL-10387B	1737
7590	09/23/2004		EXAMINER	
Eddie E. Scott Attorney P.O. Box 808 L-703 Livermore, CA 94551			NADAV, ORI	
			ART UNIT	PAPER NUMBER
			2811	
DATE MAILED: 09/23/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/621,875

Applicant(s)

WOLFE ET AL

Examiner

ori nadav

Art Unit

2811

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 June 2004.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-13 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 29 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5-8 and 12-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claimed limitations of reflective coating layer comprises the materials SiNx (or HfOx) and SiO<sub>2</sub>, as recited in claims 5-8 and 12-13, are unclear as to which materials applicant refers since, e.g. SiNx is not the conventional silicon nitride Si<sub>3</sub>N<sub>4</sub>.

### ***Drawings***

The drawings were received on 6/29/2004. These drawings are approved by the examiner.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-13, insofar as in compliance with 35 U.S.C. 112, are rejected under 35 U.S.C. 102(b) as being anticipated by Carey et al. (5,817,550).

Regarding claim 1, Carey et al. teach in figures 1 and 2 and related text a semiconductor device comprising a layer fabricated with pulsed radiation 12, a layer that can be damaged by said pulsed radiation 10, said layer that can be damaged by said pulsed radiation operatively connected to said layer fabricated with pulsed radiation, and a narrowband reflective coating layer 11, said narrowband reflective coating layer operatively connected to said layer that can be damaged by said pulsed radiation and positioned over said layer that can be damaged by said pulsed radiation for reflecting said pulsed radiation and protecting said layer that can be damaged by said pulsed radiation.

Although Carey et al. do not explicitly state that layer 11 is a narrowband reflective coating layer, wherein said narrowband reflective coating layer reflects said pulsed radiation and protecting said layer that can be damaged by said pulsed radiation, these features are inherent in Carey et al.'s device, because layer 11 comprises the same material as that of the claimed layer.

Regarding claim 2, Carey et al. teach in figures 1 and 2 and related text a layer that can be damaged by said pulsed radiation is low temperature plastic.

Regarding claim 3, Carey et al. teach in figures 1 and 2 and related text a reflective layer is single layer or multiple layers for narrowband or broadband reflection.

Art Unit: 2811

Regarding claim 4, Carey et al. teach in figures 1 and 2 and related text a reflective coating layer is a narrow band reflectance coating.

Regarding claim 9, Carey et al. teach in figures 1,2 and 3A and related text an insulating layer 11, 16 operatively connected to said layer that can be damaged by said pulsed radiation, and operatively connected to said narrowband reflective coating layer, for reflecting said pulsed radiation.

Regarding claim 11, Carey et al. teach in figures 1 and 2 and related text said layer that can be damaged by pulsed radiation is polyester (column 3, line 40).

Regarding claims 5-8 and 12-13, if layer 16 is taken as the reflective coating layer, then Carey et al. teach a reflective coating layer comprises the materials SiNx (or HfOx) and SiO2 (column 4, lines 18-20).

Regarding the claimed limitations of a reflective coating layer that has a high reflectance in the UV, greater than 70% for wavelengths between 300nm and 335nm, these features are inherent in Carey et al.'s device, because Carey et al.'s structure is identical to the claimed structure.

Regarding the process limitations recited in claim 10 ("a silicon film that is doped by said pulsed radiation annealing" and "a layer fabricated with pulsed radiation that has been fabricated with high intensity radiation sources"), these would not carry patentable weight in this claim drawn to a structure, because distinct

Art Unit: 2811

structure is not necessarily produced. Note that a “product by process” claim is directed to the product per se, no matter how actually made, In re Hirao, 190 USPQ 15 at 17 (footnote 3). See also In re Brown, 173 USPQ 685; In re Luck, 177 USPQ 523; In re Fessmann, 180 USPQ 324; In re Avery, 186 USPQ 161; In re Wertheim, 191 USPQ 90 (209 USPQ 554 does not deal with this issue); and In re Marosi et al., 218 USPQ 289, all of which make it clear that it is the patentability of the final product per se which must be determined in a “product by process” claim, and not the patentability of the process, and that an old or obvious product produced by a new method is not patentable as a product, whether claimed in “product by process” claims or not. Note that the applicant has the burden of proof in such cases, as the above case law makes clear.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-8, 10 and 12-13, insofar as in compliance with 35 U.S.C. 112, are rejected under 35 U.S.C. 103(a) as being unpatentable over Carey et al. Carey et al. teach substantially the entire claimed structure, as recited in claim 1, except stating that reflective coating layer comprises the materials SiNx (or HfOx)

Art Unit: 2811

and SiO<sub>2</sub>. Carey et al. teach dielectric layer 16 comprises the materials SiN<sub>x</sub> and SiO<sub>2</sub> (column 4, lines 18-20). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use a reflective coating layer comprises the materials SiN<sub>x</sub> (or HfO<sub>x</sub>) and SiO<sub>2</sub> in Carey et al.'s device in order to provide better protection to the substrate. Note that substitution of materials is not patentable even when the substitution is new and useful. *Safetran Systems Corp. v. Federal Sign & Signal Corp.* (DC NIII, 1981) 215 USPQ 979.

Regarding the claimed limitations of a reflective coating layer that has a high reflectance in the UV, greater than 70% for wavelengths between 300nm and 335nm, these features are inherent in Carey et al.'s device, because Carey et al.'s structure is identical to the claimed structure.

Regarding the process limitations recited in claim 10 ("a silicon film that is doped by said pulsed radiation annealing" and "a layer fabricated with pulsed radiation that has been fabricated with high intensity radiation sources"), these would not carry patentable weight in this claim drawn to a structure, because distinct structure is not necessarily produced.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

**Papers related to this application may be submitted to Technology center (TC) 2800 by facsimile transmission. Papers should be faxed to TC 2800 via the TC 2800 Fax center located in Crystal Plaza 4, room 4-C23. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Group 2811 Fax Center number is (703) 308-7722 and 308-7724. The Group 2811 Fax Center is to be used only for papers related to Group 2811 applications.**



Art Unit: 2811

Any inquiry concerning this communication or any earlier communication from the Examiner should be directed to *Examiner Nadav* whose telephone number is **(571) 272-1660**. The Examiner is in the Office generally between the hours of 7 AM to 4 PM (Eastern Standard Time) Monday through Friday.

Any inquiry of a general nature or relating to the status of this application should be directed to the **Technology Center Receptionists** whose telephone number is **308- 0956**

A handwritten signature in black ink, appearing to read 'Ori Nadav', written in a cursive style.

O.N.  
9/20/04

ORI NADAV  
PRIMARY EXAMINER  
TECHNOLOGY CENTER 2800